

**Notice of Allowability**

Application No.

10/627,494

Applicant(s)

CORBIN ET AL.

Examiner

Julian D. Huffman

Art Unit

2853

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to \_\_\_\_.
2. ☒ The allowed claim(s) is/are 1-14.
3. ☒ The drawings filed on 25 July 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_.

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Patrick R. Roche on 28 April 2005.

The application has been amended as follows:

In the abstract:

The abstract has been replaced as follows:

“The method of the present invention involves first estimating the common gamut of the colors that this printer is expected to reproduce. A left-to-right test target is printed in single-pass, uni-directional print mode, (printing on left-to-right scans only) and a color calibration table for left-to-right printing is generated. A right-to-left test pattern is printed in single-pass, uni-directional print mode, (printing on right-to-left scans only) and a color calibration table specific for right-to-left printing is generated. The next step of the present invention involves determining the mathematical intersection of the gamuts produced by printing in left-to-right mode only and by printing in right-to-left mode only. This is done by, first printing the left-to-right test target processed by the color calibration table associated with the primary print direction. Colors which are within the gamut of both left-to-right only and right-to-left only printing are identified by their similarity or distance from each other in color space. Thereafter new calibration tables are generated for each printing direction with the starting gamut (range of achievable colors) based on a slightly smaller gamut than the gamut intersection identified.”

In the claims:

Claim 5, line 2, changed "direction" to " directions".

Claim 8:

line 3, changed "process" to "processor";

line 4, replaced line 4 with the following language "said memory storing a computer program causing said processor to execute an instruction set comprising:"

In each of claims 9-14, line 1, changed "method" to "system".

Claim 12, line 2, changed "direction" to "directions".

### **Reasons For Allowance**

The following is an examiner's statement of reasons for allowance:

The primary reason for the allowance of claims 1-7 is the inclusion of the method step of a bi-directional color reproduction device that includes iteratively generating calibration tables using a defined smaller gamut as a common gamut starting point. It is this step found in the claims, as it is claimed in the combination of, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

The primary reason for the allowance of claims 8-14 is the inclusion of the limitation of a system for improved characterization of a bi-directional color reproduction device that includes a computer program causing a processor to iteratively generate calibration tables using a defined smaller gamut as a common gamut starting point. It is this limitation found in the claims, as it is claimed in the combination of, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. 6,354,692 B1 to Ross discloses using a first color map for forward printing and a second color map for return printing to provide bidirectional hue correction.

U.S. 20040196476 A1 to Yang et al. discloses generating direction dependent calibration values from direction independent calibration values for bidirectional printing.

U.S. 20050018221 A1 to Zeng et al. discloses modifying color values of a first pen to match a standard and modifying color values for a second pen for printing in a reverse/return direction to match those of the first pen.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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### Communications With The USPTO

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian D. Huffman whose telephone number is (571) 272-2147. The examiner can normally be reached on 9:30a.m.-6:00p.m. Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JH  
28 April 2005

1524-4/05  
K. FEGGINS  
PRIMARY EXAMINER